



Declaration

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The undersigned, Dr. Klaus Henning, declares and says as follows:

1. I am an inventor of the above-captioned patent application, US 09/485,377, filed April 20, 2000, entitled "Method for the continuous production of hydrolytically broken down and possibly substituted starch, use of hydrolytically broken down starch and device for producing same".
2. I am currently Production Manager of the hydroxyethyl-starch production unit at Fresenius Kabi Deutschland GmbH. I am a technical expert in the field of Carbohydrate Chemistry and with a particular expertise in the production of starch products.
3. A person skilled in the art distinguishes between not soluble (Cellulose) and soluble starch or starch derivatives (amylopektin, amylose, hydroxyethylstarch etc.). The expression "solution or suspension" is also well known in the state of the art. A solution means a homogeneous mixture of one or more substances dissolved in another substance and in the opposite a "suspension" means a heterogeneous mixture.

A suspension as mentioned on page 3, lines 22-27 of the a.m. US patent application includes grains containing a starch. This starch grains are only being hydrolysed at the surface of the particle during the reaction. The result is a non homogenous hydrolysis. According to the invention it was found that an aqueous starch solution is preferred because all starch polymers can be attacked by acid hydrolysis.

By using an aqueous starch solution and with regard to the different process parameters like temperature, reaction time, flow rate, etc. which have to be coordinated in that continuous process it is especially surprising that a hydrolysis product with specific properties in a selective and reproducible manner is obtained. According to the invention it is possible that exactly defined final values of the hydrolysis product such as molecular weight and molecular weight distribution and the like can be set.

4. The undersigned declares that all statements made herein of his knowledge are true, and that all statements made on information and belief are believed to be true.

Date 12-10-05


Dr. Klaus Henning